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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/630,645	07/29/2003	Howard Victor Banasky	2166-2-3	8269

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EXAMINER

DAVIS, ROBERT B

ART UNIT	PAPER NUMBER
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1722

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/630,645

Applicant(s)

BANASKY, HOWARD VICTOR

Examiner

Robert B. Davis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) 18-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
 - I. Claims 1-17, drawn to a pressure vessel for curing, classified in class 425, subclass 11.
 - II. Claims 18-24, drawn to a method for curing, classified in class 156, subclass 94.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions II and I are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case the apparatus as claimed can be used to practice another and materially different process such as curing a component without curing a repair to the component as required by the method or using the apparatus for providing pressure and heat to a level less than that required to cure or without the requirement of curing a repair to a component.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

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4. During a telephone conversation with John M. Janeway on May 9, 2005 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-17. Affirmation of this election must be made by applicant in replying to this Office action. Claims 18-24 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4, 11, 13, 14 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Harshberger, Jr et al (hereinafter "Harshberger"; 5,863,452: figures 1 and 3; column 3, lines 23-36; column 7, lines 11-25 and column 8, lines 1-13).

Harshberger discloses an autoclave for curing the resin in a composite material, the vessel comprising: a cylindrical body (103) having a chamber to receive the composite element (between compliant bag 100 and mandrel 102), a portal operable to permit a heating element (electrical resistance wires-column 7, lines 18 and 19) to be connected to electrical power wires (PW1) which are connected to a power source (C1) located outside the chamber to power the heating element, and a gas pressurizing means for pressurizing chamber such as a compressed shop air, a gas pressure cylinder and suitable valve for controlling the magnitude of pressurization of the chamber. The gas pressurizing means is being interpreted as a pump or compressor

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for supplying pressurized air to pressurize the chamber. This gas pressurizing means is capable to generate a pressure of 60 psi or less than or more than 60 psi. The gas pressurizing means is also located outside the chamber as the reference states that the pressurizing means is connected to the chamber by suitable valve (16)

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harshberger.

Harshberger discloses all claimed features except for the chamber having a diameter of 20 inches and a length of equal to 60 inches; however, it would have been obvious at the time of the invention to modify the dimensions of the chamber for the purpose of limiting the size of the chamber for a specific purpose to reduce operating costs and times.

9. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harshberger taken together with Anderson (4,576,776: figures 1 and 3; and column 8, lines 48-58).

Harshberger discloses all claimed features except for the interface being operable to releasably couple the heating element with the power source.

Anderson discloses a heating cylinder having an electrical connector (46) to connect a power source to heating elements (44) within the cylinder. The reference states that the heating element is electrically connected to an electrical connector (46) and that the electrical connector is in turn connected to an electric line (47) leading to a power source. It is clear that the power source is removably connected to the electrical connector.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of Harshberger by using an electrical connector which allows removable connection of an electrical source as disclosed by Anderson for the purpose of allowing the chamber to be disconnected from the power source.

10. Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harshberger taken together with Anderson as applied to claim 7 above, and further in view of Schatz et al (4,771,162: figure 2 and column 6, lines 11-20).

The combination of Harshberger and Anderson disclose all claimed features except for the portal being removably connected to the chamber, and a temperature sensor removably connected to the chamber.

Schatz et al discloses a temperature sensor (30) connected via a connecting bushing (31) screwed tightly into the wall section (32) of the chamber. The reference also teaches a removable portal for making an electrical connection.

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of Harshberger by making the electrical connector removable as disclosed by Schatz et al for the purpose of adding flexibility to change

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electrical sources or heaters to allow replacement. It would have been further obvious to modify the connection of the thermal couple with the controller as disclosed by Schatz et al for the purpose of allowing maintenance on the apparatus.

11. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Harshberger taken together with Cox (4,447,402: figures 1-5).

Harshberger discloses all claimed features except for the hinged door.

Cox discloses an autoclave having a door (12) attached to the vessel (10) by a hinge (13).

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of Harshberger by having a hinge connection of the door to the vessel as disclosed by Cox for easing the loading and unloading of the vessel to increase cycle time.

12. Claims 10, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harshberger taken together with Handel et al (5,345,397: figure 1 and column 5, lines 26-47).

Harshberger disclose all claimed features except for the use of two thermocouples within the vessel.

Handel et al disclose a curing apparatus comprising a vessel (12) having two thermocouples (54 and 55) and portals within the vessel for connecting the thermocouples with a control unit (38).

It would have been obvious at the time of the invention to one of ordinary skill in the art to modify the apparatus of Harshberger by using a second thermocouple as

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disclosed by Handel et al for the purpose of improving control of the heating within the autoclave by obtaining readings from different locations within the chamber.

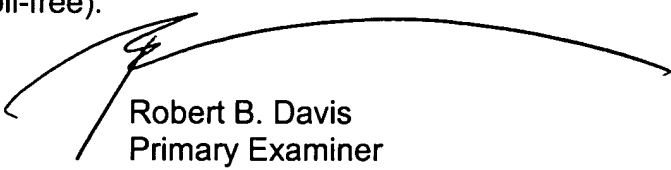
Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The remaining reference display the state of the art of autoclave vessels.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert B. Davis whose telephone number is 571-272-1129. The examiner can normally be reached on Monday-Friday 9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duane Smith can be reached on 571-272-1166. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Robert B. Davis
Primary Examiner
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9/16/05